

SEQUENCE LISTING

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STREET, IAN P.

<120> PEPTIDES AND THERAPEUTIC USES THEREOF

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<140> 10/540,390
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<151> 2003-12-24

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<170> PatentIn Ver. 3.3

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      of substitutions and preferred embodiments

<400> 24
Ile Xaa Gln Xaa Leu Arg Arg Ile Ala Asp Xaa Phe
      1           5           10

<210> 25
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<220>
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<222> (4)
<223> Asp, Lys, Glu or Orn and this residue is linked
      to position 11 by a linker

<220>
<221> MOD_RES
<222> (11)
<223> Asp, Lys, Glu or Orn and this residue is linked
      to position 4 by a linker
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<220>
<223> see specification as filed for detailed description
of substitutions and preferred embodiments

<400> 25
Tyr Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 26
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
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<222> (4)
<223> Asp, Lys, Glu or Orn and this residue is linked
to position 11 by a linker

<220>
<221> MOD_RES
<222> (11)
<223> Asp, Lys, Glu or Orn and this residue is linked
to position 4 by a linker

<220>
<223> see specification as filed for detailed description
of substitutions and preferred embodiments

<400> 26
Ala Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 27
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
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<223> Asp, Lys, Glu or Orn and this residue is linked
to position 11 by a linker

<220>
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<223> Asp, Lys, Glu or Orn and this residue is linked
to position 4 by a linker

<220>
<223> see specification as filed for detailed description
of substitutions and preferred embodiments

<400> 27
Ile Ala Gln Xaa Ala Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 28
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
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<223> Asp, Lys, Glu or Orn and this residue is linked
to position 11 by a linker

<220>
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<223> Asp, Lys, Glu or Orn and this residue is linked
to position 4 by a linker

<220>
<223> see specification as filed for detailed description
of substitutions and preferred embodiments

<400> 28
Ile Ala Gln Xaa Leu Arg Arg Ala Gly Asp Xaa Phe
1 5 10

<210> 29
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

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<220>
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      to position 11 by a linker

<220>
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<223> Asp, Lys, Glu or Orn and this residue is linked
      to position 4 by a linker

<220>
<223> see specification as filed for detailed description
      of substitutions and preferred embodiments

<400> 29
Ile Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Ala
      1           5           10

<210> 30
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<220>
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      to position 11 by a linker

<220>
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<222> (11)
<223> Asp, Lys, Glu or Orn and this residue is linked
      to position 4 by a linker

<220>
<223> see specification as filed for detailed description
      of substitutions and preferred embodiments

<400> 30
Ile Ala Gln Xaa Leu Ser Ser Ile Gly Asp Xaa Phe
      1           5           10

<210> 31
<211> 16
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
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<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 31
Ile Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Phe Asn Ala Ser Phe
1 5 10 15

<210> 32
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
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<223> Asp, Lys, Glu or Orn and this residue is linked to position 4 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 32
Lys Ile Ala Xaa Leu Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 33
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
<221> MOD_RES
<222> (8)
<223> Asp or Glu and this residue is linked to position 1 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 33
Xaa Ile Ala Gln Glu Leu Arg Xaa Ile Gly Asp Glu Phe
1 5 10

<210> 34
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

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<220>
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<222> (11)
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<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 34
Ile Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 35
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
<221> MOD_RES
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<223> Asp or Glu and this residue is linked to position 4 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 35
Ile Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 36
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
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<223> Asp or Glu and this residue is linked to position 4 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 36
Ile Ala Gln Xaa Leu Arg Arg Ile Gly Asp Xaa Phe
1 5 10

<210> 37
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 37
Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn
1 5 10

<210> 38
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 38
Asp Leu Arg Pro Glu Ile Arg Ile Ala Gln Glu Leu Arg Arg Ile Gly
1 5 10 15

Asp Glu Phe Asn Glu Thr Tyr Thr Arg Arg
20 25

<210> 39
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 39
Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn
1 5 10

<210> 40
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 40
Asp Leu Arg Pro Glu Ile Arg Ile Ala Gln Glu Leu Arg Arg Ile Gly
1 5 10 15

Asp Glu Phe Asn Glu Thr Tyr Thr Arg Arg
20 25

<210> 41
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 41
Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe
1 5 10

<210> 42
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 42
Gln Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe
1 5 10

<210> 43
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
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<223> This residue is linked to position 1 by a linker

<220>
<223> see specification as filed for detailed description
of substitutions and preferred embodiments

<400> 43
Glu Ile Ala Gln Glu Leu Arg Glu Ile Gly Asp Glu Phe
1 5 10

<210> 44
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<220>
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<223> This residue is linked to position 4 by a linker

<220>
<223> see specification as filed for detailed description
of substitutions and preferred embodiments

<400> 44
Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe
1 5 10

<210> 45
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 45
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe
1 5 10

<210> 46
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
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<220>
<221> MOD_RES
<222> (9)
<223> This residue is linked to position 2 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 46
Ile Glu Ile Ala Gln Glu Leu Arg Glu Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 47
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (6)
<223> This residue is linked to position 13 by a linker

<220>
<221> MOD_RES
<222> (13)
<223> This residue is linked to position 6 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 47
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 48
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (9)
<223> This residue is linked to position 16 by a linker

<220>
<221> MOD_RES
<222> (16)
<223> This residue is linked to position 9 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 48
Ile Trp Ile Ala Gln Glu Leu Arg Glu Ile Gly Asp Glu Phe Asn Glu
1 5 10 15

<210> 49
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 49
Glu Ile Ala Gln Glu Leu Arg Glu Ile Gly Asp Glu Phe
1 5 10

<210> 50
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 50
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 51
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
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<220>
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<222> (13)
<223> This residue is linked to position 6 by a linker

<220>
<223> see specification as filed for detailed description of substitutions and preferred embodiments

<400> 51
Gln Ala Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 52
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 52
Ile Trp Ile Ala Gln Gln Leu Arg Arg Ile Gly Asp Gln Phe Asn Ala
1 5 10 15

<210> 53
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 53
Ile Trp Ala Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 54
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 54
Ile Trp Ile Ala Gln Glu Ala Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 55
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 55
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ala Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 56
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 56
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Ala Asn Ala
1 5 10 15

<210> 57
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 57
Ile Trp Ala Ala Gln Glu Ala Arg Arg Ala Gly Asp Glu Ala Asn Ala
1 5 10 15

<210> 58
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 58
Ile Phe Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 59
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 59
Ala Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 60
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 60
Ile Ala Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 61
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 61
Ile Arg Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 62
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 62
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Ala Asn
1 5 10 15

<210> 63
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 63
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Ala Ala
1 5 10 15

<210> 64
<211> 16
<212> PRT
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<220>
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<400> 64
Ile Trp Ile Ala Gln Glu Leu Xaa Xaa Ile Gly Asp Glu Phe Asn Ala
1 5 10 15

<210> 65
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 65
Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly Asp Glu Phe Asn Asn
1 5 10 15

<210> 66
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 66
Arg Glu Ile Gly Ala Gln Leu Arg Arg Met Ala Asp Asp Leu Asn Ala
1 5 10 15

<210> 67
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 67
Val Gln Ile Ala Arg Lys Leu Gln Ala Ile Ala Asp Gln Phe His Arg
1 5 10 15

<210> 68
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 68
Asp Met Arg Pro Glu Ile Trp Ile Ala Gln Glu Leu Arg Arg Ile Gly
1 5 10 15

Asp Glu Phe Asn Ala Tyr Tyr Ala Arg Arg
20 25

<210> 69
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (1)
<223> D-Ala

<220>
<221> MOD_RES
<222> (2)
<223> D-Asn

<220>
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<223> D-Phe

<220>
<221> MOD_RES
<222> (4)
<223> D-Glu

<220>
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<222> (5)
<223> D-Asp

<220>
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<222> (6)
<223> D-Gly

<220>
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<223> D-Ile

<220>
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<223> D-Arg

<220>
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<222> (10)
<223> D-Leu

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<222> (11)
<223> D-Glu

<220>
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<222> (12)
<223> D-Gln

<220>
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<222> (13)
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<222> (14)
<223> D-Ile

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<221> MOD_RES
<222> (15)
<223> D-Trp

<220>
<221> MOD_RES
<222> (16)
<223> D-Ile

<400> 69
Ala Asn Phe Glu Asp Gly Ile Arg Arg Leu Glu Gln Ala Ile Trp Ile
1 5 10 15

<210> 70
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
6xHis tag

<400> 70
His His His His His
1 5